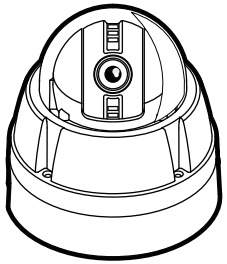
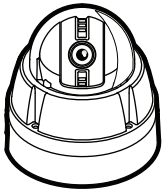


Concept Pro VHSD-810EXT

Speed Dome System

User Manual



Concept Pro VHSD-810 EXT
Speed Dome System
User Manual

Ver. 1 . 1 / 2009.10

Safety Information

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warning
This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.

Precaution
This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
5. When installing the camera, fasten it securely and firmly. A falling camera may cause personal injury.
6. Do not place conductive objects (e.g. screw drivers, coins, metal things, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way.
10. When cleaning, disconnect the power first do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.
11. Adequate protection against lightning strikes and power surges must be installed to prevent damage to the speed dome.

Precautions

Operating
- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact your Special dealer.

Handling
- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- Care must be taken when you clean the clear dome cover. Especially, scratch and dust will ruin your quality of camera.

Installation and Storage
- Do not install the camera in areas of extreme temperature, which exceed the allowable range.
- Avoid installing in humid or dusty places.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the camera would be subject to strong vibrations.
- Never expose the camera to rain and water.

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22 OSD - CONCEPT PRO SPEED DOME & SYSTEM INFORMATION
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29 OSD - FUNCTION SETUP>PATTERN SETUP
30 OSD - FUNCTION SETUP>GROUP SETUP
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1 Product & Accessories

Please check if all the camera and accessories are included in the package.

1 Main Body

Camera module, screws, terminal block slot and DIP switches are included.

2 Surface Mount Bracket

- It is used when installing the camera right on to the ceiling.
- To install the camera with the surface mount bracket, the bracket needs to be separated from the main body, then needs to be re-assembled the bracket and the main body according to the order.

3 Screw & Plastic Anchor

- Screws are used to fix the surface mount bracket to the ceiling.
- Plastic anchors are used to tighten the screws to the hole by inserting them into the holes in advance.

4 Terminal Block

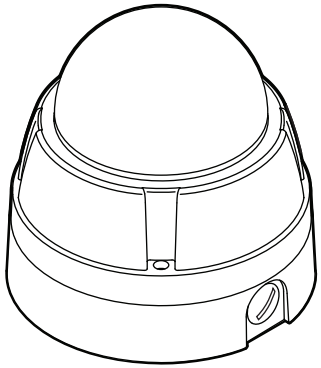
Power, video, communication and alarm input cables are connected through the terminal blocks.

5 Torx Screw Driver

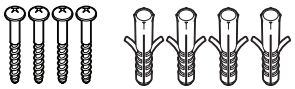
It is used to screw/unscrew the fixed screws on the main body.

6 Manual

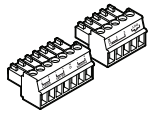
Please read the manual carefully before installing.



1 Main Body + 2 Surface Mount Bracket

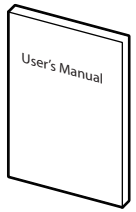


3 Screw & Plastic Anchor-4pcs



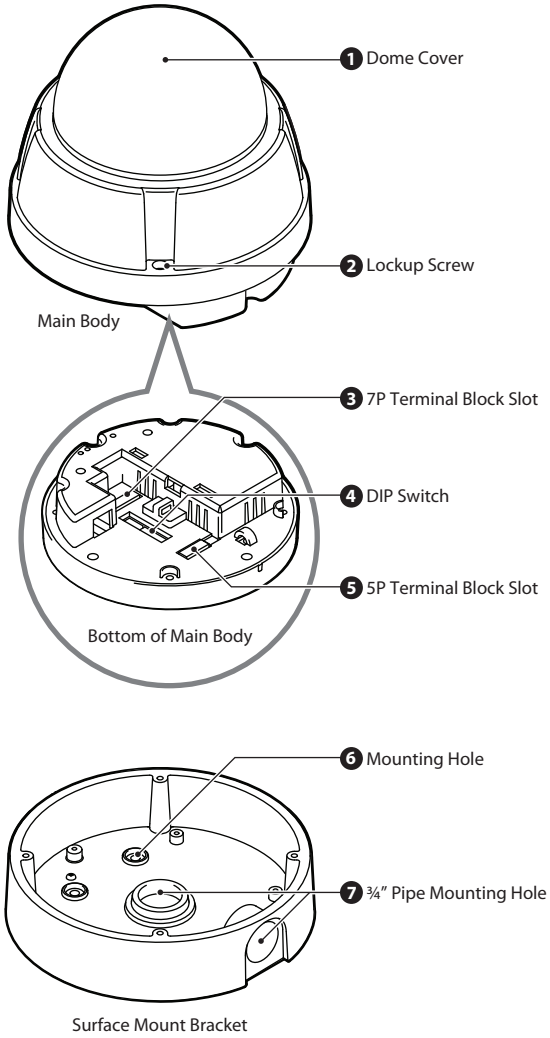
4 Terminal Block x2: 5P+7P

5 Torx Screw Driver



6 Manual

Parts Name & Functions



1 Dome Cover

- Protects the camera module from outside environment.
- Do not detach protection vinyl from the dome cover before finishing all installation processes to protect dome cover from scratches or dust.

2 Lockup Screw

Fixes main body to the surface mount bracket.

3 7P Terminal Block Slot

- Power, keyboard controller/DVR video device are connected to this terminal block.
- Refer page 15 for details.

4 DIP Switch

- Adjusts camera ID and protocols.
- Refer page 8, 9 for details.

5 5P Terminal Block Slot

- Alarm input and relay out cables are connected to this terminal block.
- Refer page 14 for details.

6 Mounting Hole

This is used to attach the surface mount bracket to the ceiling.

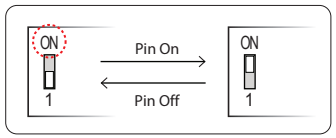
7 ¾" Pipe Mounting Hole

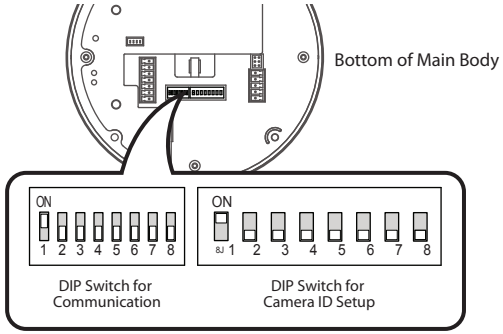
- This is used to pass the cables to the cameras.
- When water protection is needed, connect the ¾" pipe through this hole, then pass the cables through the pipe.

2 DIP Switch Setup

※ Before installing the camera, you should set the DIP switch to configure the camera ID, communication protocol.

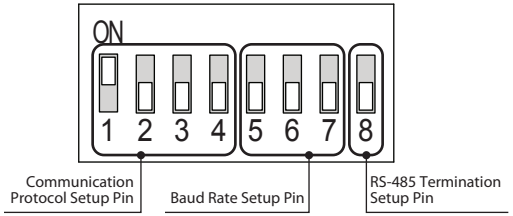
Pin On/Off
If the pin is located 'ON' side of the printed label, it means on. In reverse, means off.





1. DIP Switch for Communication

- It is consist of communication protocol, baud rate and RS-485 termination setup pins.
- If you change the camera protocol by changing the DIP switch, the change will be effective after rebooting the camera.



2. Communication Protocol Setup

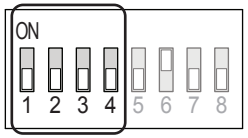
- If you want to control using DVR or keyboard controller, their protocol must be identical to the camera's protocol. Otherwise, you cannot control the camera.
- The factory default is PELCO-D protocol.

❶ Auto Protocol

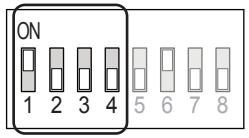
- If you set the protocol as auto protocol the camera will automatically recognize the kind of protocol. (within the available protocols opposite)

Choose the appropriate communication protocol by setting the DIP switch.

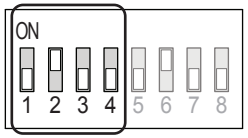
❶ Auto Protocol



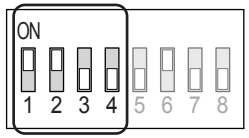
❷ PELCO-D



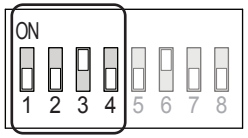
❸ PELCO-P



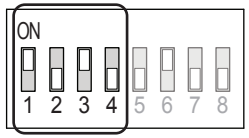
❹ SAMSUNG



❺ Panasonic



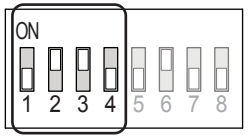
❻ GE(Kalatel)



※ If there is other combination of pins from above, it will be recognize as auto protocol.

DIP Switch Setup

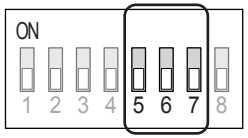
❼ AD(American Dynamics)



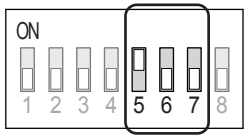
2. Communication Protocol Setup

Choose the appropriate baud rate protocol by setting the DIP switch

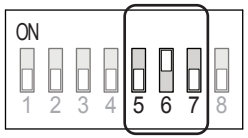
❶ 2400 BPS



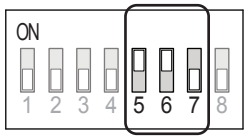
❷ 4800 BPS



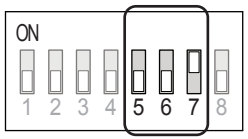
❸ 9600 BPS



❹ 19200 BPS



❺ 38400 BPS

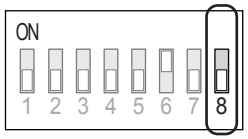


3. Baud Rate Setup

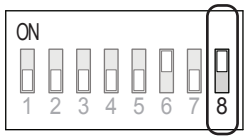
- Select the appropriate baud rate with DIP switch combination.
- The factory default is 2400BPS.

Choose the termination resistor on/off to notify the last camera.

❶ Normal



❷ Last Camera



4. RS-485 Termination Setup

- Pin 8 is use for on/off of RS-485 termination. Normally, it must be off state.
- Especially, when you have trouble with long daisy chain style connection, turn on this termination switch of the last camera.

Camera ID Setup

- ID number of camera is set using binary number. The example is shown below.

Pin	1	2	3	4	5	6	7	8
ID Value	1	2	4	8	16	32	64	128
ex) ID=5	on	off	on	off	off	off	off	off
ex) ID=10	off	on	off	on	off	off	off	off

5. DIP Switch for Camera ID Setup

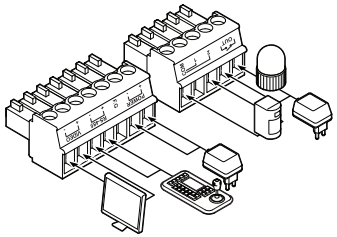
- If you want to control a certain camera, you must match the camera ID with 'CAM ID', setting of DVR or keyboard controller.
- ID number of the camera is set using binary number.
- The range of ID is 0~255. Factory default of camera ID is 1.
- Camera ID will be effective without rebooting the camera.

2 Installation Using Surface Mount Bracket

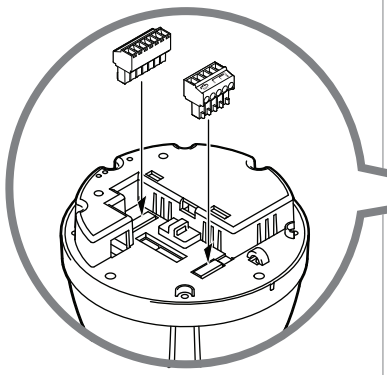
1 Drilling the Hole on the Ceiling
To pass cables through the ceiling, drill a hole (30mm diameter) on the ceiling panel.

2 Fix the Surface Mount Bracket
Pass the cables to the ¾″ pipe hole, and screw the surface mount bracket to the ceiling.

3 Connect the Cables
- Connect wire cables to the terminal blocks.
- Refer page 14, 15 for details.

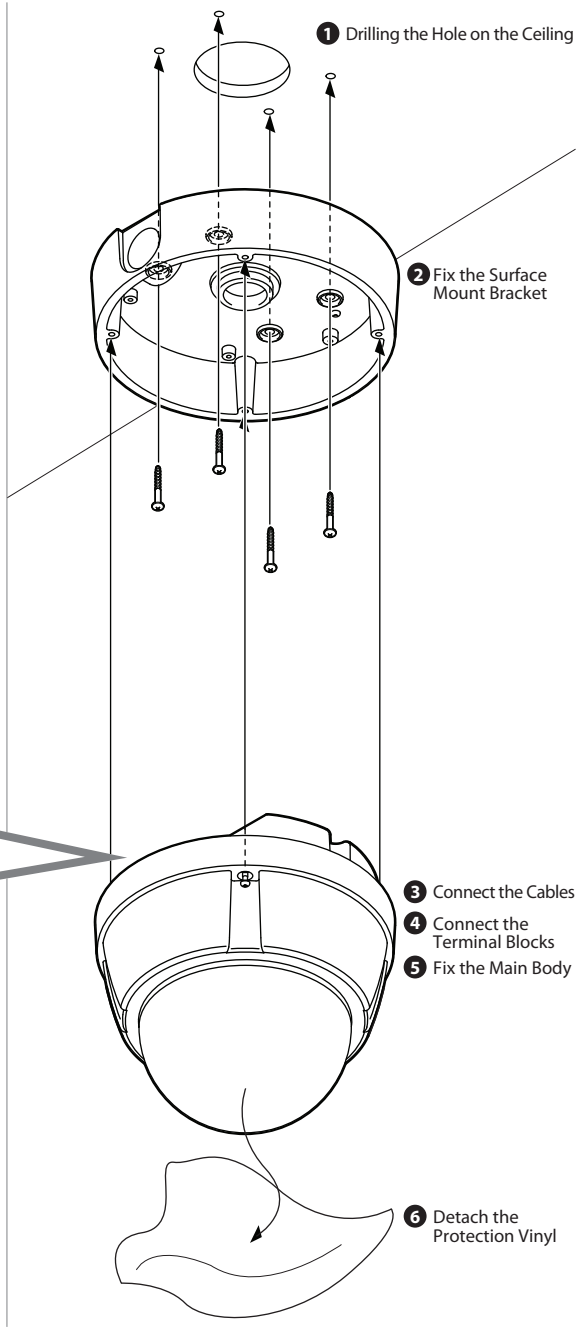


4 Connect the Terminal Blocks
Connect the terminal blocks to the main body.

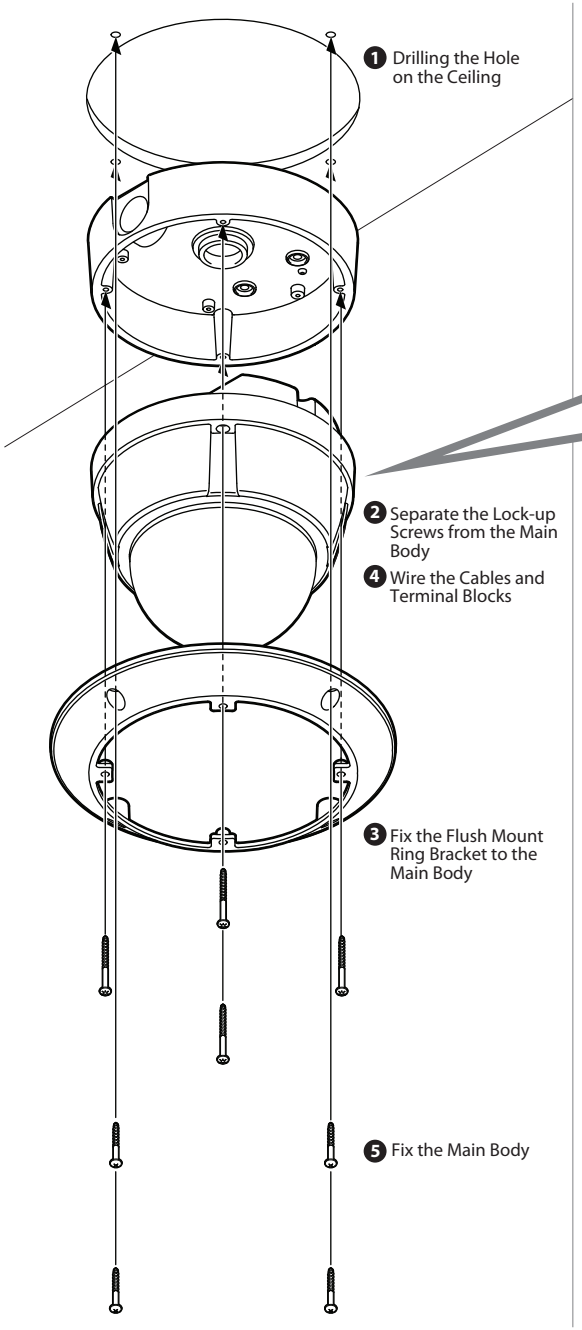


5 Fix the Main Body
Screw the main body to the surface mount bracket by screwing 4 lock-up screws.

6 Detach the Protection Vinyl
Detach the protection vinyl from the dome cover.

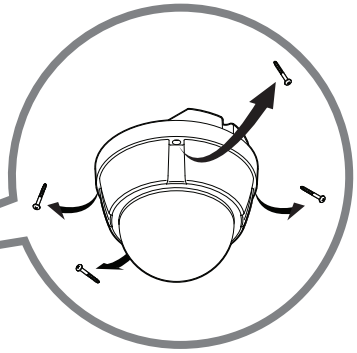

1 Drilling the Hole on the Ceiling
2 Fix the Surface Mount Bracket
3 Connect the Cables
4 Connect the Terminal Blocks
5 Fix the Main Body
6 Detach the Protection Vinyl

Installation Using Flush Mount Ring Bracket (Option)


1 Drilling the Hole on the Ceiling
2 Separate the Lock-up Screws from the Main Body
4 Wire the Cables and Terminal Blocks
3 Fix the Flush Mount Ring Bracket to the Main Body
5 Fix the Main Body

1 Drilling the Hole on the Ceiling
To pass cables through the ceiling, drill a hole(70mm diameter) on the ceiling.

2 Separate the Lock-up Screws from the Main Body
Separate the 4 lock-up screws from the main body in advance.



3 Fix the Flush Mount Ring Bracket to the Main Body
Fix the flush mount ring bracket to the main body using torx screws.

4 Connect Wire the Cables and Terminal Blocks
Connect wire cables to the terminal blocks.
Refer page 14, 15 for details.

5 Fix the Main Body
Screw the main body with the surface mount bracket to the ceiling using the screws on the surface mount bracket.

6 Detach the Protection Vinyl
Detach the protection vinyl from the dome cover.

2 Installation Using Ceiling Mount Bracket (Option)

1. Installing on the Concrete Ceiling

❶ Drill the Ceiling and Fix the Anchor Bolts
On the ceiling, drill a hole (6mm diameter/ 50mm depth), and fix the anchor bolts.

❷ Fix the Ceiling Mount Bracket
1. Drill a hole (20mm diameter) on the pipe of the bracket to pass the cables.
2. On the fixed anchor bolts, attach the rubber gasket and screw the ceiling mount bracket.

2. Installing on the Wooden Ceiling

❶ Drill the Ceiling
To pass cables to upside of ceiling, drill a hole (30mm diameter) on the ceiling.

❷ Fix the Ceiling Mount Bracket
Pass the cables into the ceiling mount bracket, and screw the ceiling mount bracket to the ceiling.

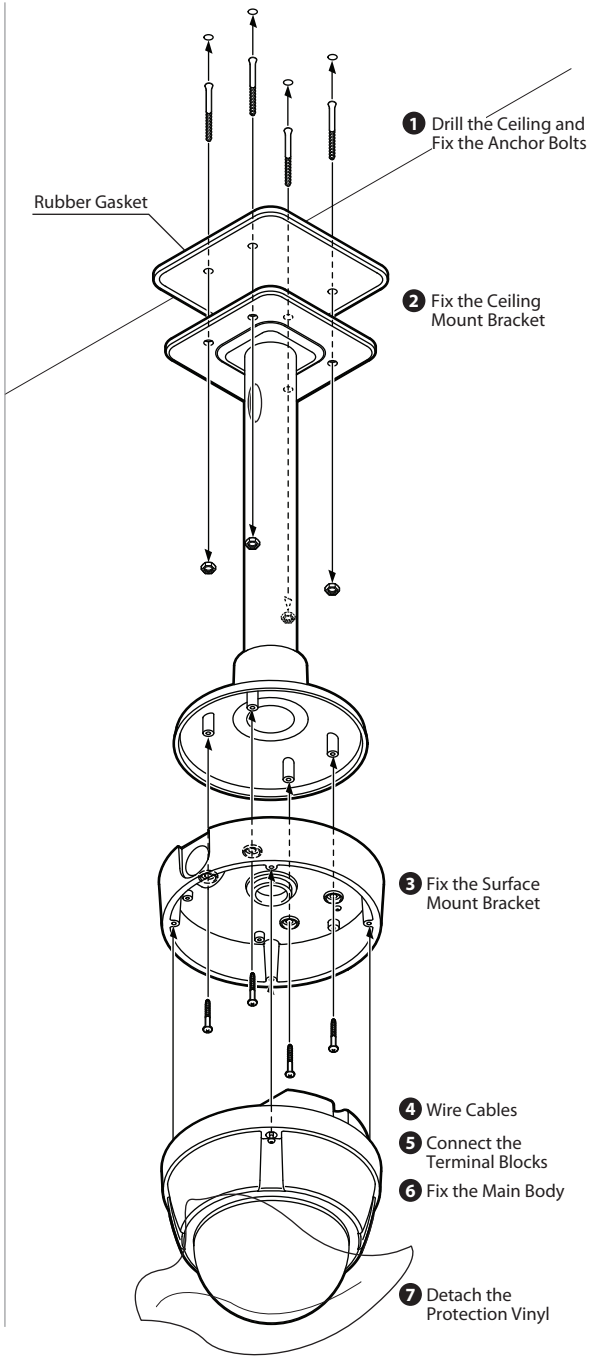
❸ Fix the Surface Mount Bracket
Pass the cables through the hole of the surface mount bracket, screw the surface mount bracket to the ceiling mount bracket.

❹ Wire Cables
Wire the cables to the terminal block.
Refer page 14, 15.

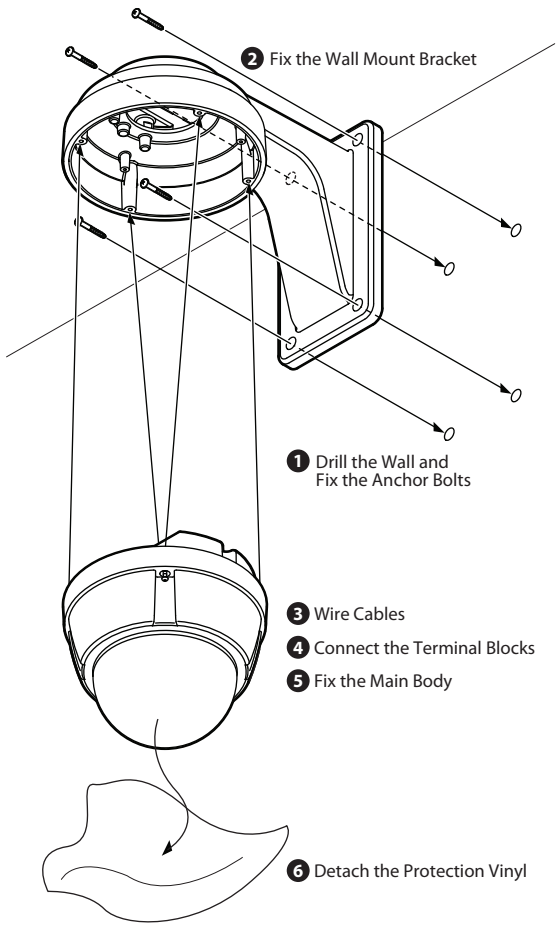
❺ Connect the Terminal Blocks
Connect terminal block to the main body.
Refer page 10.

❻ Fix the Main Body
Screw the main body to the surface mount bracket.
(Screws are included in the main body.)

❼ Detach the Protection Vinyl
Detach the protection vinyl from the dome cover.


❶ Drill the Ceiling and Fix the Anchor Bolts
Rubber Gasket
❷ Fix the Ceiling Mount Bracket
❸ Fix the Surface Mount Bracket
❹ Wire Cables
❺ Connect the Terminal Blocks
❻ Fix the Main Body
❼ Detach the Protection Vinyl

Installation Using Wall Mount Bracket (Option)


❷ Fix the Wall Mount Bracket
❶ Drill the Wall and Fix the Anchor Bolts
❸ Wire Cables
❹ Connect the Terminal Blocks
❺ Fix the Main Body
❻ Detach the Protection Vinyl

1. Installing on the Concrete Wall

❶ Drill the Wall and Fix the Anchor Bolts
On the wall, drill a hole (6mm diameter/50mm depth), and fix the anchor bolts.

❷ Fix the Wall Mount Bracket
1. Drill a hole (20mm diameter) on the pipe of the bracket to pass the cables.
2. On the fixed anchor bolts, attach the rubber gasket and fix the wall mount bracket with nuts and screws.

2. Installing on the Wooden Wall

❶ Drill the Wall
To pass cables to the wall, make a hole about 30 mm on the wall.

❷ Fix the Wall Mount Bracket
Pass the cables into the wall mount bracket, and screw the wall mount bracket to the wall.

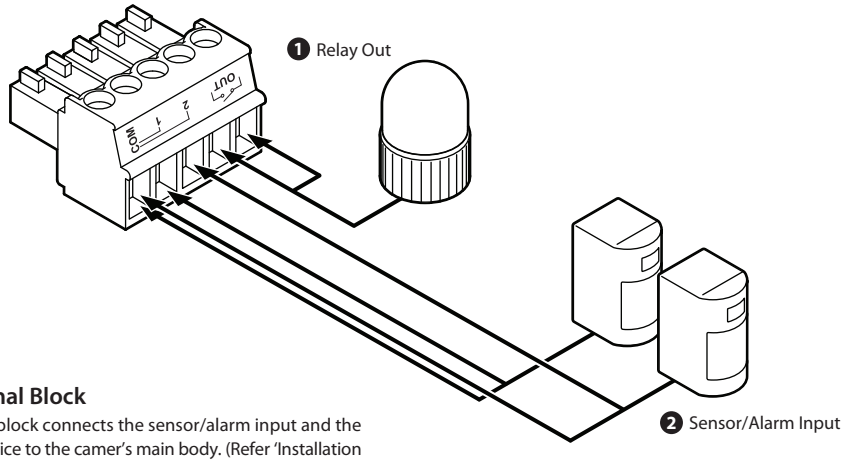
❸ Wire Cables
Wire the cables to the terminal block.
Refer page 14, 15.

❹ Connect the Terminal Blocks
Connect terminal block to the main body.
Refer page 10.

❺ Fix the Main Body
Screw the main body to the surface mount bracket.
(Screw are included in the main body.)

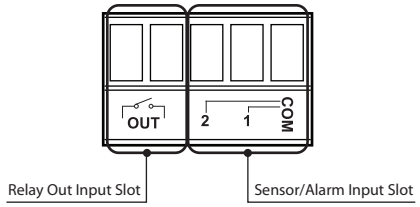
❻ Detach the Protection Vinyl
Detach the protection vinyl from the dome cover.

2 Cabling the 5P Terminal Block



5P Terminal Block

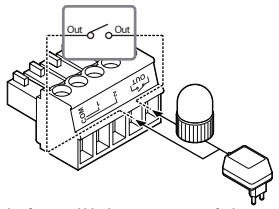
5p terminal block connects the sensor/alarm input and the relay out device to the camer's main body. (Refer 'Installation Using Surface Mount Bracket' of page 10 for the connection of the terminal block.)



1 Relay Out

- It connects to the alarm lights, siren or lamps, and it is activated according to the OSD menu setting.
- If you want to use relay out, the types of sensor must be selected in OSD menu (CONCEPT PRO SPEED DOME> SYSTEM SETUP>RELAY TYPE). The sensor types are normal open and normal close.

Normal Open (N.O)	Output voltage is high state when sensor is activated.
Normal Close (N.C)	Output voltage is high state when sensor is not activated.

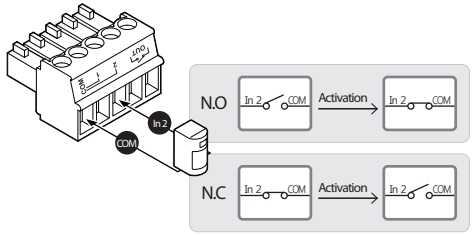


<Inside of terminal block: Activation type of relay out N.O.>

2 Sensor/Alarm Input

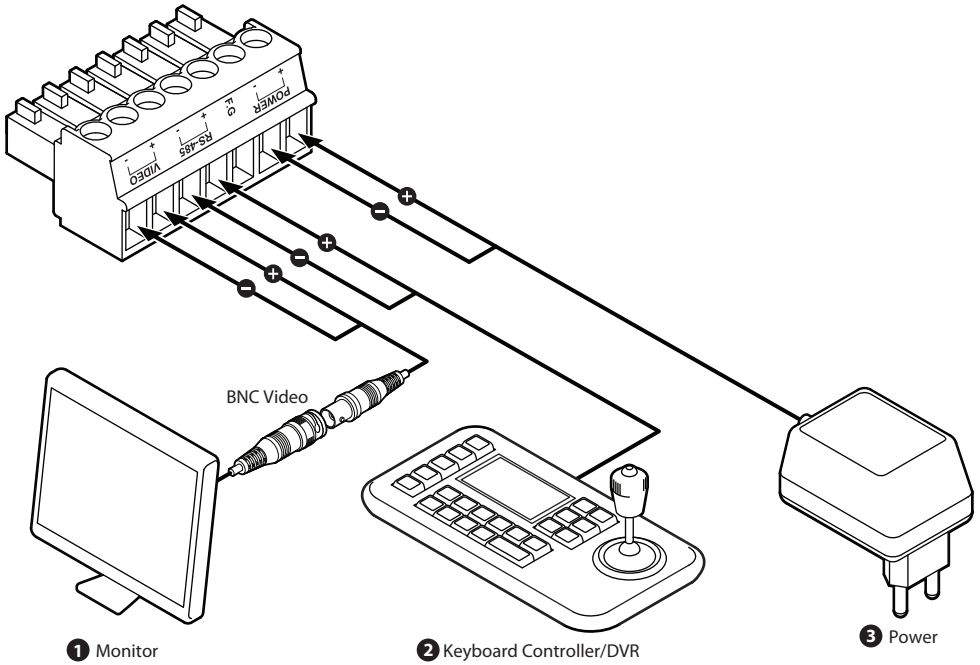
- It connects to IR sensor, IrDA sensor or door switch. If the sensor is activated, it can activate to move camera to the specific angle and to connect the alarm device.
- A cable of the sensor should connect to input 1 or 2, and the other should be connected to 'COM' slot.
- If you want to use alarm input, the types of sensor must be selected in OSD menu (CONCEPT PRO SPEED DOME> MOTION SETUP>ALARM INPUT SETUP). The sensor types are normal open and normal close.

Normal Open (N.O)	Output voltage is high state when sensor is activated.
Normal Close (N.C)	Output voltage is high state when sensor is not activated.



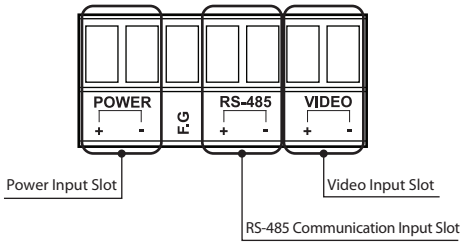
<Inside of terminal block: Activation type of alarm input N.O. / N.C.>

Cabling the 7P Terminal Block



7P Terminal Block

7p terminal block connects the power, keyboard controller/ DVR or video device and etc to the camera's main body. (Refer 'Installation Using Surface Mount Bracket' of page 10 for the connection of the terminal block.)

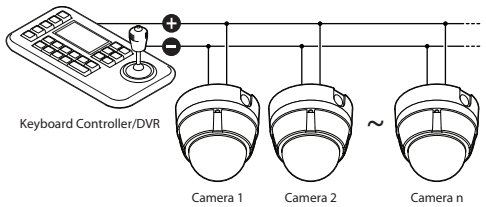


1 Monitor

Connects to video output device such as monitor using the BNC coaxial cable.

2 Keyboard Controller/DVR

Controls PTZ by connecting with keyboard controller or DVR using RS-485 communication standards.



3 Power

- Please check the correct rated power.
- The rated power is marked on the bottom of the camera.

Power	Range	Power Consumption
DC 12V	DC 11V ~ 15V	7.8W

3 Check Points before Operation

Check Points before Operation

1. Before power is applied, please check the cables carefully.
2. The camera ID of the controller must be identical to that of the target camera. The camera ID can be checked by reading DIP switch of the camera.
3. If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.
4. If you changed camera protocol by changing DIP switch, the change will be effective after you reboot the camera.
5. Since the operation method can be different for each controller available, refer to the manual for your controller if camera cannot be controlled properly.

❶ Preset and Pattern Function Pre-check

- Check how to operate preset and pattern function with keyboard controller/DVR in advance to operate camera function fully when using keyboard controller/DVR.
- If keyboard controller/DVR has no pattern key or function, use shortcut keys with preset numbers. For more information, refer to 'Reserved Preset' below.

❷ Reserved Preset

Some preset numbers are reserved to special functions.

Preset key + 95: Enters into OSD menu
Preset key + 131~134: Runs pattern function 1 ~ 4
Preset key + 141~148: Runs scan function 1 ~ 8
Preset key + 151~158: Runs group function 1 ~ 8
Preset key + 161: Sets relay output to OFF
Preset key + 161: Sets relay output to ON
Preset key + 165: Sets auto calibration to ON
Preset key + 166: Sets auto calibration to OFF
Preset key + 167: Zoom proportional jog ON
Preset key + 167: Zoom proportional jog OFF
Preset key + 170: Sets camera BLC mode to OFF
Preset key + 171: Sets camera BLC mode to HIGH
Preset key + 174: Sets camera focus mode to AUTO
Preset key + 175: Sets camera focus mode to MANUAL
Preset key + 176: Sets camera focus mode to SEMI-AUTO
Preset key + 177: Sets day & night mode to AUTO1
Preset key + 178: Sets day & night mode to NIGHT
Preset key + 179: Sets day & night mode to DAY
Preset key + 190: Sets OSD display mode to AUTO (Except privacy mask)
Preset key + 191: Sets OSD display mode to OFF (Except privacy mask)
Preset key + 192: Sets OSD display mode to ON (Except privacy mask)
Preset key + 193: Sets all privacy mask display to OFF
Preset key + 194: Sets all privacy mask display to ON
Preset key + 195: Sets fan/heater to ON (Turning off after 5 min, turn to auto mode)
Preset key + 196: Sets fan/heater to OFF (After turning off, turn to manual mode)
Preset key + 197: Fan ON(Turning off after 5 min, turn to auto mode)
Preset key + 198: Fan OFF(After turning off, turn to manual mode)
Preset key + 200: Sets digital zoom to ON
Preset key + 201: Sets digital zoom to OFF

❸ Auto Calibration

- If the camera is exposed the high temperature(over 50°) for a long time, the camera can lose focus. As a result, you will get a blurry image. In this case, enter 'Preset key + 165' to enable auto calibration.
- If auto calibration is enabled, the camera will be re-focused once every 6 hours. If you want to disable this function, enter 'Preset key + 165'.

Main Functions

❶ Preset

- Max. 127 positions can be stored as preset positions. The preset number can be assigned from 1 to 128, but 95 is reserved for starting OSD menu.
- Refer page 26 - 'CONCEPT PRO SPEED DOME>FUNCTION SETUP>PRESET SETUP' for more detailed information.

1. Set Preset
Method 1) Use keyboard controller:
▩ Refer to keyboard controller manual.
Method 2) Use OSD menu.

2. Run Preset
Method 1) Use keyboard controller:
Preset key + Number key(1~128)

3. Delete Preset
To delete pattern, use OSD menu.

❷ VST

- By using VST function, you can make the camera move between 2 preset positions repeatedly.
- Refer page 28 - 'CONCEPT PRO SPEED DOME>FUNCTION SETUP>VST SETUP' for more detailed information.

1. Set VST
To set VST, use OSD menu.

2. Run VST
Method 1) If there is VST key on the keyboard controller:
VST key + VST number(1~8) + Enter key
Ex) Run VST 2 = VST key + [2] + Enter key
Method 2) If there is no VST key on the keyboard controller:
Preset key + [VST number(1~8) + 140]
Ex) Run VST 2 = Preset key + [142]

3. Delete VST
To delete VST, use OSD menu.

❸ Pattern

- Pattern function is that a camera memorizes the path (mostly curve path) by joystick of controller for assigned time and revives the path exactly as it memorized.
- Refer page 29 - 'CONCEPT PRO SPEED DOME>FUNCTION SETUP>PATTERN SETUP' for more detailed information.

1. Set Pattern
To set pattern, use OSD menu.

2. Run Pattern
Method 1) If there is pattern key on the keyboard controller:
Pattern key + Pattern number(1~4) + Enter key
Ex) Run pattern 2 = Pattern key + [2] + Enter key
Method 2) If there is no pattern key on the keyboard controller:
Preset key + [Pattern number(1~4) + 130]
Ex) Run pattern 2 = Preset key + [132]

3. Delete Pattern
To delete pattern, use OSD menu.

❹ Group

- The group function allows running sequence of presets, pattern and/or VSTs.
- Refer page 30 - 'CONCEPT PRO SPEED DOME>FUNCTION SETUP>GROUP SETUP' for more detailed information.

1. Set Group
To set group, use OSD menu.

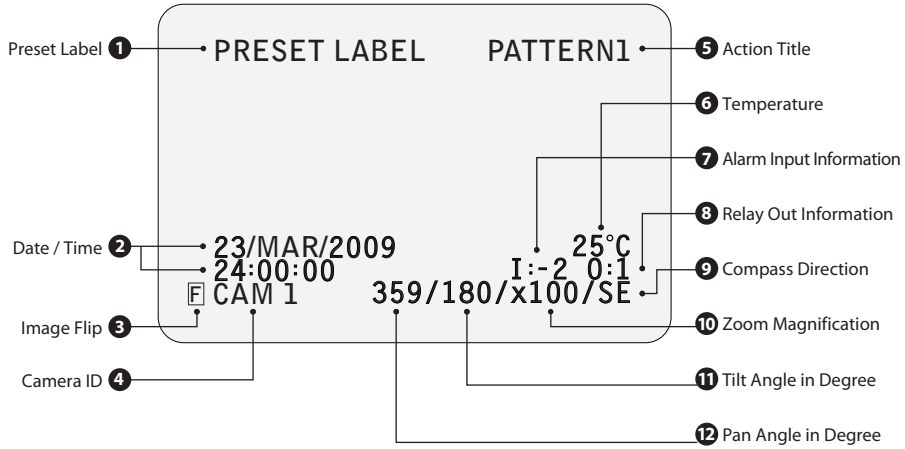
2. Run Group
Method 1) If there is group key on the keyboard controller:
Group key + Group number(1~8) + Enter key
Ex) Run group 2 = Group button + [2] + Enter key
Method 2) If there is no group key on the keyboard controller:
Preset key + [Group number(1~8) + 150]
Ex) Run group 2 = Preset key + [152]

3. Delete Group
To delete group, use OSD menu.

❺ Schedule

- The schedule function allows running an appropriate function like preset, VST, group, pattern, home move at the designated day and time.
- Refer Page 32 - 'CONCEPT PRO SPEED DOME>FUNCTION SETUP>SCHEDULE SETUP' for more detailed information.

3 OSD Information



❶ Preset Label
- The label stored for specific preset.
- Refer page 27 for setting preset label. (CONCEPT PRO SPEED DOME>FUNCTION SETUP>PRESET SETUP>LABEL)

❷ Date / Time
- Shows the current date/time.
- Refer page 36 for setting date/time. (CONCEPT PRO SPEED DOME>SYSTEM SETUP>DATE/TIME SETUP)

❸ Image Flip
- Shows that images are currently reversed by auto flip function.
- Refer page 34 for setting image flip. (CONCEPT PRO SPEED DOME>CAMERA SETUP>IMAGE FLIP)

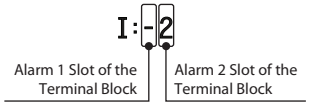
❹ Camera ID
- The current camera ID.
- The camera ID is identical with the address of 'CONCEPT PRO SPEED DOME>SYSTEM INFORMATION'.

❺ Action Title
Shows the current action titles of the camera.

Action Title	
SET PRESET 123	Means to store preset 123.
PRESET 123	Means it reached preset 123.
PATTERN 9	Means the camera is running pattern 9.
VST 1/PRESET 123	Means the camera is running VST 1.
UNDEFINED	Means the action received is not defined.

❻ Temperature
- Current temperature: Boxed 'C' and 'F' means celsius and fahrenheit respectively.
- Refer page 23 for setting temperature unit. (CONCEPT PRO SPEED DOME>DISPLAY SETUP> TEMPERATURE)

❼ Alarm Input Information
This information shows current state of alarm Input. If an input is on state it will show the number of input. If an input is off state, ' - ' will be displayed.



❽ Relay Out Information
This information shows the current state of relay out. If the output is on state it will show the number of output. If an output is off state, ' - ' will be displayed.

Relay Out On	Relay Out Off
0:1	0:-

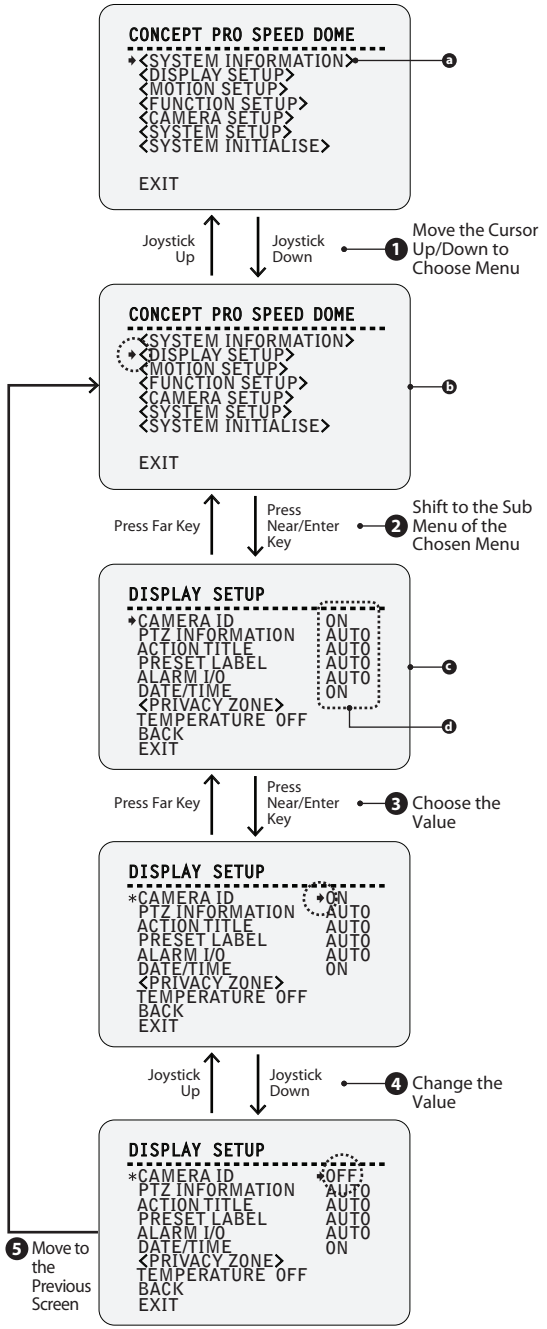
❾ Compass Direction
- Shows the current compass direction of the camera.
- The direction is shown as N(North), S(South), E(East), W(West), NE(Northeast), NW(Northwest), SE(Southeast), SW(Southwest).
- Refer page 37 for setting compass direction. (CONCEPT PRO SPEED DOME>SYSTEM SETUP>SET NORTH DIRECTION)

❿ Zoom Magnification
Shows the current zoom magnification.

⓫ Tilt Angle in Degree
Shows the current tilt(0-180) angle.

⓬ Pan Angle in Degree
Shows the current fan(0-359) angle.

General Rules of Menu Operation



※ This page explains how to operate the OSD menu using keyboard controller.

※ Read the manual of the keyboard controller.

※ If there are no keys or functions described below, refer the manual of the keyboard controller.

❶ Move the Cursor Up/Down to Choose Menu
To move from items to item in the menu, move the joystick Up/Down.

❷ Shift to the Sub Menu of the Chosen Menu
For all menu level, to go into sub menu, press near/enter key.

❸ Choose the Value
To change the value, press near/enter key to move the cursor to the value.

❹ Change the Value
Move the joystick Up/Down to change the value.

❺ Move to the Previous Screen
Press near key to save values and press far key to cancel values, then go to the previous screen.

ⓐ : The menu items surrounded with < > always have its sub menu. To move to the sub menu, press near/enter key.

ⓑ : This screen is the main menu of the ⓒ (DISPLAY SETUP).

ⓒ : This screen is the sub menu of 'DISPLAY SETUP' on the screen ⓑ.

ⓓ : ⓓ is the value of the each content.

3 OSD Menu Contents

CONCEPT PRO SPEED DOME	The 1st screen	The 2nd screen	The 3rd screen	The 4th screen	Value
<SYSTEM INFORMATION>	FIRMWARE VER				1.0
	COLOUR SYSTEM				PAL
	PROTOCOL				PELCO-D
	BAUD RATE				2400
	ADDRESS				1
<DISPLAY SETUP>	CAMERA ID				**ON** / OFF
	PTZ INFORMATION				ON / OFF / **AUTO**
	ACTION TITLE				ON / OFF / **AUTO**
	PRESET LABEL				ON / OFF / **AUTO**
	ALARM I/O				ON / OFF / **AUTO**
	DATE/TIME				**ON** / OFF
	<PRIVACY ZONE>	ZONE NO.			**1(UNDEFINED) ~ 4(UNDEFINED)**
		DISPLAY			ON / **OFF**
		CLEAR ZONE			CANCEL / OK
		<EDIT ZONE>	Select the Camera location	Select the Zone Size & Colour	
	TEMPERATURE				**CELSIUS** / FAHRENHEIT / OFF
<MOTION SETUP>	PRESET LOCK				ON / **OFF**
	PWR UP ACTION				**ON** / OFF
	AUTO FLIP				**ON** / OFF
	JOG MAX SPEED				2/SEC ~ 360/SEC **(Default: 140/SEC)**
	JOG DIRECTION				INVERSE / **NORMAL**
	FRZ IN PRESET				ON / **OFF**
	<PARKING ACTION SETUP>	PARK ENABLE			ON / **OFF**
		WAIT TIME			**00:00:05** ~ 04:00:00
		PARK ACTION			**HOME** / PRESET / VST / PATTERN / GROUP
	<ALARM INPUT SETUP>	ALARM TYPE			**N.O(Normal Open)** / N.C(Normal Close)
		ALARM ACTION			**NOT USED** / HOME / PRESET 1~128 / VST 1~8 / PATTERN 1~4 / GROUP 1~4
<FUNCTION SETUP>	<PRESET SETUP>	PRESET NO.			**1(UNDEFINED)** ~ 128(UNDEFINED)
		<EDIT SCENE>	Select the Camera location		
		<LABEL>	Input Label		
		CLR PRESET			CANCEL / OK
		CAM ADJUST			**GENERAL** / SPECIAL
		ALARM OUT			- / 1
	<VST SETUP>	VST NO.			**1(UNDEFINED) ~ 8(UNDEFINED)**
		1ST POSITION			PRESET 1 ~ 128
		2ND POSITION			PRESET 1 ~ 128
		VST SPEED			2/SEC ~ 360/SEC **(Default: 30/SEC)**
		CLEAR VST			CANCEL / OK
	<PATTERN SETUP>	PATTERN NO.			**1(UNDEFINED) ~ 4(UNDEFINED)**
		CLR PATTERN			CANCEL / OK
		<EDIT PATTERN>	Select the Camera location		
	<GROUP SETUP>	GROUP NO.			**1(UNDEFINED) ~ 8(UNDEFINED)**
		CLEAR GROUP			CANCEL / OK
		<EDIT GROUP>	Select the camera action, operation time and option		**1(NONE) ~ 20(NONE)**
	<SCHEDULE SETUP>	MASTER ENABLE			ON / **OFF**
		Schedule No.			**1(UNDEFINED) ~ 7(UNDEFINED)**

CONCEPT PRO SPEED DOME	The 1st screen	The 2nd screen	Value
<CAMERA SETUP>	FOCUS MODE		AUTO / MANUAL / **SEMIAUTO**
	DIGITAL ZOOM		**ON** / OFF
	IMAGE FLIP		ON / **OFF**
	<WHITE BALANCE SETUP>	WB MODE	**AUTO** / MANUAL
		RED ADJUST	10 ~ 60
		BLUE ADJUST	10 ~ 60
	<EXPOSURE SETUP>	BACK LIGHT	**OFF** / LOW / MIDDLE / HIGH
		DAY/NIGHT	**AUTO1** / AUTO2 / DAY / NIGHT
		BRIGHTNESS	0~100 **(Default: 25)**
		IRIS	**AUTO** / MANUAL (0~100)
		SHUTTER	**ESC** / A.FLICKER / MANUAL(×128~1/120000 sec)
		AGC	OFF / **NORMAL** / HIGH
		SSNR	OFF / LOW / **MIDDLE** / HIGH
		DSS	AUTO(2~128) / **OFF**
<SYSTEM SETUP>	<DATE/TIME SETUP>	DATE	dd / mm / yyyy
		TIME	hh : mm : ss
	<RELAY TYPE>	RELAY 1	**N.O(Normal Open)** / N.C(Normal Close)
	<PASSWORD>	Input Password	
	<SET HOME POSITION>	Select the Camera location	
	<SET NORTH DIRECTION>	Select the Camera location	
	LANGUAGE		**ENGLISH** / ESPAÑOL / FRANÇAIS / DEUTSCH / ITALIANO / РУССКИЙ / PORTUGUÊS
<SYSTEM INITIALISE>	CLEAR ALL DATA		NO / YES
	CLR DISPLAY SET		NO / YES
	CLR CAMERA SET		NO / YES
	CLR MOTION SET		NO / YES
	CLR FUNCTION SET		NO / YES
	REBOOT CAMERA		NO / YES
	REBOOT SYSTEM		NO / YES

※ The bold characters of the value are the default value of the system. (Refer page 38 – 'SYSTEM INITIALISE')

3 OSD - CONCEPT PRO SPEED DOME & SYSTEM INFORMATION

❶

```
CONCEPT PRO SPEED DOME
➧<SYSTEM INFORMATION>
 <DISPLAY SETUP>
 <MOTION SETUP>
 <FUNCTION SETUP>
 <CAMERA SETUP>
 <SYSTEM SETUP>
 <SYSTEM INITIALISE>

 EXIT
```

❶ CONCEPT PRO SPEED DOME

To enter this screen, enter 'Preset key + 95'.

<SYSTEM INFORMATION>
Shows information and current configuration.

<DISPLAY SETUP>
Enable/Disable of OSD display on main screen.

<MOTION SETUP>
Setup for motion related settings.

<FUNCTION SETUP>
Setup for various functions such as preset, VST, pattern, group and schedule.

<CAMERA SETUP>
Configure camera related functions and data.

<SYSTEM SETUP>
Configure for basic system setup.

<SYSTEM INITIALISE>
Initialises system configuration and sets all data to factory default configuration.

EXIT
To escape from the OSD setting, go to exit.

❶

```
CONCEPT PRO SPEED DOME
 FIRMWARE VER    1.0
 COLOUR SYSTEM   PAL
 PROTOCOL        PELCO-D
 BAUD RATE       2400
 ADDRESS         1

 BACK
 EXIT
```

❶ SYSTEM INFORMATION

Shows basic information and current configuration of the system.

FIRMWARE VER
Shows the current firmware version.

COLOUR SYSTEM
Shows the current analog video system.

PROTOCOL
Shows the current PTZ control protocol.

BAUD RATE
Shows the current baud rate of the PTZ control.

ADDRESS
Shows the current camera ID of the PTZ control.

OSD - DISPLAY SETUP

❶

```
DISPLAY SETUP
 CAMERA ID          ON
 PTZ INFORMATION    AUTO
 ACTION TITLE       AUTO
 PRESET LABEL       AUTO
 ALARM I/O          AUTO
 DATE/TIME          ON
➧<PRIVACY ZONE>
 TEMPERATURE OFF
 BACK
 EXIT
```

Press Near/Enter Key

❷

```
PRIVACY ZONE
➧ZONE NO.          1
 DISPLAY           UNDEFINED
 CLEAR ZONE        OFF
 <EDIT ZONE>       CANCEL


 BACK
 EXIT
```

Select <EDIT ZONE>, Press Near/Enter Key

❸

```
EDIT ZONE          1




 MOVE TO TARGET POSITION
 [NEAR:SELECT/FAR:CANCEL]
                    0/0/x1/E
```

Move Camera to Area to Mask, Press Near/Enter Key

❹

```
EDIT ZONE          1

 [ZOOM : COLOUR CHANGE]
 [←→ ADJUST ZONE WIDTH]
 [↑↓ ADJUST ZONE HEIGTH]
 [NEAR:SELECT/FAR:CANCEL]
```

Press Near Key to Save

❺

```
PRIVACY ZONE
 ZONE NO.          1
 DISPLAY           ON
 CLEAR ZONE        CANCEL
➧<EDIT ZONE>


 BACK
 EXIT
```

❶ DISPLAY SETUP

This menu defines to enable/disable of OSD display on main screen.

CAMERA ID	ON / OFF
PTZ INFORMATION	ON / OFF / AUTO If an item is set to be 'AUTO', the item is displayed only when the value of it is changed.
ACTION TITLE	ON / OFF / AUTO
PRESET LABEL	ON / OFF / AUTO
ALARM I/O	ON / OFF / AUTO
DATE/TIME	ON / OFF
<PRIVACY ZONE> Moves to the privacy zone setup.	
TEMPERATURE	CELSIUS / FAHRENHEIT / OFF

❷ PRIVACY ZONE

- Selects area in image to mask.
- It selects the area to mask, and setup various function of the zone.

ZONE NO. Select zone number. If the selected zone has data already, camera moves as it was set. Otherwise, 'UNDEFINED' will be displayed under 'ZONE NO.'.	1 ~ 4
DISPLAY Sets if the camera makes mask shows or not on images.	ON / OFF
CLEAR ZONE Deletes data in the selected zone no.	CANCEL / OK
<EDIT ZONE> Moves to setup the zone no.	

❸ EDIT ZONE - Select Zone Location

1. Move camera to area to mask.
2. Adjust the zone size. Use the zoom key to adjust the image size.
3. Press near key to complete the location.

❹ EDIT ZONE - Select Zone Colour and Size

1. Choose the zone colour using zoom key.
   (The current colour is 50% transparent. When the zone setting is completed, the zone area is masked by 100% opaque colour.)
2. Move joystick Left/Right to adjust the width.
3. Move joystick Up/Down to adjust the height.
4. Press near key to complete the setting.
5. If press far key, it returns to the previous setting without storing the setting.

❺ ZONE SETTING - Completion Screen

- Run the zone no. marked on the screen.
- The value of 'DISPLAY' is set to 'ON' automatically.
- Can set zone 2 ~ 4 continuously.

※ The objects behind the zone can be shown when the camera is moving in a short period.

※ It is recommended that the size of the zone must be 20% bigger than the original target size so as to mask the objects during high speed pan/tilt.

3 OSD - MOTION SETUP

❶
```
MOTION SETUP
➧PRESET LOCK      OFF
 PWR UP ACTION    ON
 AUTO FLIP        ON
 JOG MAX SPEED    140/SEC
 JOG DIRECTION    NORMAL
 FRZ IN PRESET    OFF
 <PARKING ACTION SETUP>
 <ALARM INPUT SETUP>
 BACK
 EXIT
```

Press Near/Enter Key

❷
```
PARKING ACTOIN SETUP
➧PARK ENABLE     OFF
 WAIT TIME       00:10:00
 PARK ACTION     HOME


 BACK
 EXIT
```

❶ MOTION SETUP

Setup the general functions of pan/tilt motions.

PRESET LOCK ON / OFF
If motion lock is set to on, it is impossible to set up and delete preset, VST, pattern and group. It is possible only to run those functions. To set up and delete those functions, enter into OSD menu.

PWR UP ACTION ON / OFF
This function enables to resume the last action executed before power down. Most of actions such as preset, pattern, VST and group are available for this function but jog actions are not available to resume.

AUTO FLIP ON / OFF
In case that tilt angle arrives at the top of tilt orbit (90°), zoom module camera keep moving to opposite tilt direction (180°) to keep tracing targets. As soon as zoom module camera passes through the top of tilt direction(90°), images should be reversed automatically and 'F' appears in screen. If this function is set to 'OFF', tilt movement range is 0° ~ 90°

JOG MAX SPEED 2/SEC ~ 360/SEC
Sets maximum jog speed. Jog speed is inversely proportional to zoom magnification. As zoom magnification goes up, pan/tilt speed goes down.

JOG DIRECTION INVERSE / NORMAL
If you set this to 'INVERSE', the view in the screen is moving same direction with jog tilting. If 'NORMAL' is selected, the view in the screen is moving reversely.

FRZ IN PRESET ON / OFF
At start point of preset movement, camera starts freezing the image of start point. Camera keeps displaying the image of start point during preset movement and does not display the images which camera gets during preset movement. As soon as camera stops at preset end point, camera starts displaying live images which it gets at preset end point. This function availability should be different by models.

<PARKING ACTION SETUP>
Moves to 'PARKING ACTION SETUP' screen.

<ALARM INPUT SETUP>
Moves to 'ALARM INPUT ACTION' screen.

❷ PARKING ACTION SETUP

If 'PARK ENABLE' is set to 'ON', camera runs assigned function automatically if there is no PTZ command during assigned 'WAIT TIME'.

PARK ENABLE ON / OFF
Enables/Disables 'PARKING ACTION'.

WAIT TIME 00:00:05 ~ 04:00:00
The time is displayed with "hh:mm:ss" format and you can change this by 1 sec unit.

1. To place the cursor on the time marked as below, press near key.
   00:10:00
2. Move joystick Left/Right to adjust hours, minutes and seconds.
3. Move joystick Up/Down to select the digit.
4. By pressing near key, save current setting.

PARKING ACTION HOME / PRESET 1~128 / VST 1~8 / PATTERN 1~4 / GROUP 1~8
Select the action of parking. Move joystick Up/Down to choose the appropriate action.

❶
```
MOTION SETUP
 PRESET LOCK      OFF
 PWR UP ACTION    ON
 AUTO FLIP        ON
 JOG MAX SPEED    140/SEC
 JOG DIRECTION    NORMAL
 FRZ IN PRESET    OFF
 <PARKING ACTION SETUP>
➧<ALARM INPUT SETUP>
 BACK
 EXIT
```

Press Near/Enter Key

❷
```
ALARM INPUT SETUP
➧ALARM 1 N.O    NOT USED
 ALARM 2 N.O    NOT USED


 BACK
 EXIT
```

Press Near/Enter Key

❸
```
ALARM INPUT SETUP
➧ALARM 1 N.O    NOT USED
 ALARM 2 N.O    NOT USED


 BACK
 EXIT
```

Joystick Right

❹
```
ALARM INPUT SETUP
➧ALARM 1 N.O    NOT USED
 ALARM 2 N.O    NOT USED


 BACK
 EXIT
```

Joystick Down

❺
```
ALARM INPUT SETUP
➧ALARM 1 N.O    PRESET 1
 ALARM 2 N.O    NOT USED


 BACK
 EXIT
```

❷ ALARM INPUT SETUP

If an external sensor is activated, camera will move to corresponding action.

Alarm Type: N.O(Normal Open) / N.C(Normal Close)
- Sets sensor input type.
- Refer page 14 for more detailed information.

Alarm Action NOT USED / HOME / PRESET 1~128 / VST 1~8 / PATTERN 1~4 / GROUP 1~8
Assign counter-action to each alarm input. Among 149 actions, choose the action as explained below.

❸ ALARM INPUT SETUP - Type Setup

1. Move joystick Up/Down to set alarm type.
2. Move joystick Left/Right to set alarm action.

❹❺ ALARM INPUT SETUP - Alarm Action Setup

1. Move joystick Up/Down to set the action(HOME, PRESET, VST, PATTERN, GROUP) and no.
2. On screen 5, move joystick Left/Right to move the focus to set alarm type, function name and function no.
3. By pressing near key, save the current setting.

OSD - FUNCTION SETUP > PRESET SETUP

❶
```
FUNCTION SETUP
➧<PRESET SETUP>
 <VST SETUP>
 <PATTERN SETUP>
 <GROUP SETUP>
 <SCHEDULE SETUP>


 BACK
 EXIT
```

Press Near/Enter Key

❷
```
PRESET SETUP
➧PRESET NO.     1
                UNDEFINED
 <EDIT SCENE>


 BACK
 EXIT
```

Select <EDIT SCENE>, Press Near/Enter Key

❸
```
EDIT SCENE      -PRESET1



 MOVE TO TARGET POSITION
 [NEAR:SELECT/FAR:CANCEL]
                    0/0/x1/E
```

Press Near/Enter Key

❹
```
PRESET SETUP
➧PRESET NO.     1
 <EDIT SCENE>
 <LABEL>
 CLR PRESET   CANCEL
 CAM ADJUST   GENERAL
 ALARM OUT      -
 BACK
 EXIT
```

❶ FUNCTION SETUP

Configure 5 special functions with this menu.

<PRESET SETUP>
Moves to 'PRESET SETUP' screen.

<VST SETUP>
Moves to 'VST SETUP' screen. Refer page 28.

<PATTERN SETUP>
Moves to 'PATTERN SETUP' screen. Refer page 29.

<GROUP SETUP>
Moves to 'GROUP SETUP' screen. Refer page 30.

<SCHEDULE SETUP>
Moves to 'SCHEDULE SETUP' screen. Refer page 32.

❷ PRESET SETUP - Undefined Screen

127 presets from the number 1 to 128 can be assigned excluding preset 95 reserved for menu.

PRESET NO. 1 ~ 128 (Excluding 95)
If a selected preset is already defined, camera moves to pre-defined position and preset characteristics such as label and relay outputs show on monitor. (Refer screen 4) If a selected preset is not defined, "UNDEFINED" shows on monitor.

<EDIT SCENE>
Moves to 'EDIT SCENE' setup screen.

❸ EDIT SCENE

1. Using joystick, move camera to desired position.
2. Using zoom key, move camera to desired screen size.
3. By pressing near key, the save current PTZ data

❹ PRESET SETUP

If the preset is defined, the information will be shown on the OSD menu with the setting, and the alarm device (if defined) will be activated.

PRESET NO. 1 ~ 128 (Excluding 95)

<EDIT SCENE>

<LABEL>
Edits Label to show on monitor when preset runs. If the preset is not defined, this is not shown. Refer following page to setup label.

CLR PRESET CANCEL / OK
Deletes current preset data. If the preset is not defined, this is not shown.

CAM ADJUST GENERAL / SPECIAL
- **CAM ADJUST_GENERAL:** The general mode means that WB or AE defined 'CONCEPT PRO SPEED DOME>CAMERA SETUP' will be applied to this preset.
- **CAM ADJUST_SPECIAL:** The Special mode means that WB or AE can be set up independently or separately for each preset in each preset setup menu.
- Special WB/AE value should activate only when the camera arrives at each preset location. During jog operation, general WB/AE value should be applied.
- Refer following page to set special WB/AE.

ALARM OUT - / 1
Relay output can be linked with preset run. ' - 'means off, '1' means on.

❶
```
PRESET SETUP
 PRESET NO.     1
 <EDIT SCENE>
➧<LABEL>
 CLR PRESET   CANCEL
 CAM ADJUST   GENERAL
 ALARM OUT      -
 BACK
 EXIT
```

Press Near/Enter Key

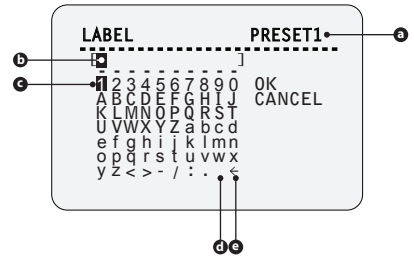
❷
```
LABEL           PRESET1
[               ]
 - - - - - - - - - -
 1 2 3 4 5 6 7 8 9 0  OK
 A B C D E F G H I J  CANCEL
 K L M N O P Q R S T
 U V W X Y Z a b c d
 e f g h i j k l m n
 o p q r s t u v w x
 y z < > - / : . ←
```

Press Near/Enter Key

❸
```
LABEL           PRESET1
[SKY            ]
 - - - - - - - - - -
 1 2 3 4 5 6 7 8 9 0 ➧OK
 A B C D E F G H I J  CANCEL
 K L M N O P Q R S T
 U V W X Y Z a b c d
 e f g h i j k l m n
 o p q r s t u v w x
 y z < > - / : .
```

❷ LABEL

- Edits label to show on monitor when preset runs.
- Max. 10 alphabets are allowed(Including space).



ⓐ Preset NO. for Label

ⓑ Input Cursor: The character which cursor is located will be input or edited.

ⓒ Cursor Selecting Alphabet: Using Left/Right/Up/Down of joystick, move to an appropriate character from the character set.

ⓓ Space: If you want to use blank, choose space character (" ").

ⓔ Back-Space: If you want to delete a character before, use back space character ('←').

❸ LABEL – Alphabet Input

- If you complete the label editing, move cursor to 'OK' and press near key to save completed label. To abort current change, move cursor to 'CANCEL' and press near key.

❶
```
PRESET SETUP
 PRESET NO.     1
 <EDIT SCENE>
 <LABEL>
 CLR PRESET   CANCEL
*CAM ADJUST ➧<SPECIAL>
 ALARM OUT      -
 BACK
 EXIT
```

Press Near/Enter Key

❷
```
CAM ADJUST      -PRESET1
➧<WHITE BALANCE SETUP>
 <AUTO EXPOSURE SETUP>



 BACK
 EXIT
```

❷ CAM ADJUST

Sets WB/AE for the preset when 'CAM ADJUST' value is 'SPECIAL'.

<WHITE BALANCE SETUP>
Moves to 'WHITE BALANCE SETUP' screen. Refer page 34.

<AUTO EXPOSURE SETUP>
Moves to 'AUTO EXPOSURE SETUP' screen. Refer page 35.

3 OSD - FUNCTION SETUP>VST SETUP

❶
```
FUNCTION SETUP
 <PRESET SETUP>
➧<VST SETUP>
 <PATTERN SETUP>
 <GROUP SETUP>
 <SCHEDULE SETUP>

 BACK
 EXIT
```

Press Near/Enter Key

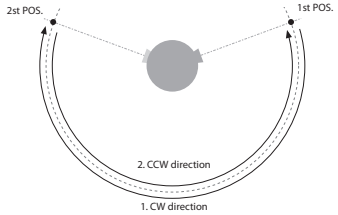
❷
```
VST SETUP
➧VST      NO.  1
 1ST POS.      NOT USED
 2ST POS.      NOT USED

 VST SPEED     30/SEC
 CLEAR VST     CANCEL

 BACK
 EXIT
```

❷ VST SETUP

- Up to 8 VST are available, which makes the camera to move slowly between two preset positions.
- When VST function runs, the camera moves from the preset assigned as the 1st pos. to the preset assigned as the 2nd pos. in CW(Clockwise) direction. Then camera moves from the preset assigned as the 2nd pos. to the preset assigned as the 1st pos. in CCW(Counterclockwise) direction. Then, it continues to move from the 1st pos. to the 2nd pos. back and forth.

If the 1st POS. = the2nd POS.
In case that the preset assigned as the 1st pos. is same as the preset assigned as the 2nd pos., camera turns on its axis by 360° in CW direction and then it turns on its axis by 360° in CCW direction.

If one preset is not defined between the 1st POS. and the 2nd POS.
If case that a position assigned is 'NOT USED', camera turns on its axis by 360° in CW direction from the preset which is 'NOT USED' and then it turns on its axis by 360° in CCW direction.



VST NO. 1 ~ 8
Select VST number to edit. If a selected VST is defined, 2 presets will be displayed in the 1st position and the 2nd position.

1ST POS. PRESET 1 ~ 128, NOT USED
Set up the 1st position for scan function. If a selected preset is not defined, 'UNDEFINED' will be displayed as shown below.

```
VST SETUP
 VST      NO.  1
*1ST POS.      ➧PRESET 1
 2ST POS.       NOT USED
                UNDEFINED
 SCAN SPEED     30/SEC
```

▩Undefined preset cannot be assigned as position. If you press near key when the selected preset is 'UNDEFINED', the preset will returned to previous position(Available preset or 'NOT USED').

2ST POS. PRESET 1 ~ 128, NOT USED
Same as the 1st pos. setup.

VST SPEED 1/SEC ~ 180/SEC
Sets the VST speed.

CLEAR VST CANCEL / OK
Deletes the data in current VST.

OSD - FUNCTION SETUP>PATTERN SETUP

❶
```
FUNCTION SETUP
 <PRESET SETUP>
 <VST SETUP>
➧<PATTERN SETUP>
 <GROUP SETUP>
 <SCHEDULE SETUP>

 BACK
 EXIT
```

Press Near/Enter Key

❷
```
PATTERN SETUP
➧PATTERN NO.    1
 CLR PATTERN    CANCEL
 <EDIT PATTERN>

 BACK
 EXIT
```

Select <EDIT PATTERN>, Press Near/Enter Key

❸
```
EDIT PATTERN     1


 MOVE TO START POSITION
 [NEAR:START/  FAR:CANCEL]
                  0/0/x1/E
```

Move Camera to Area, Press Near/Enter Key

❹
```
EDIT PATTERN     1
■■■■■■■■■■■■■■■■■■■■


 [NEAR:SAVE /  FAR:DELETE]
                  0/0/x1/E
```

Record the Path of the Pattern by Camera Control

❺
```
EDIT PATTERN     1
■■■■■----------


 [NEAR:SAVE /  FAR:DELETE]
                  0/0/x1/E
```

❷ PATTERN SETUP

It records the free path of camera by joystic control.

PATTERN NO. 1 ~ 4
Select pattern number to edit. If a selected pattern number is not defined, 'UNDEFINED' will be displayed under selected pattern number.

CLR PATTERN CANCEL / OK
Deletes data in the current pattern.

<EDIT PATTERN>
Moves to edit the pattern assigned.

❸ EDIT PATTERN - Select the Position

1. By using joystick, move to start position.
2. By using joystick, move to the appropriate zoom.
3. To start pattern recording, press near key.

❹ EDIT PATTERN - Records the Path

1. Move camera with joystick of controller or run preset function to memorize the path (mostly curve path) in a selected pattern.
2. The total memory size and the rest memory size is displayed in the form of bar. (Refer screen 5)

▩If bar is full as below, the camera does not record any more paths.

```
EDIT PATTERN     1
TIME LIMITE...----------
```

▩The pattern path includes the zoom magnification.

3. To save data and exit, press near key.
4. To cancel recording and delete the recorded data, press far key.

▩When pattern is edited or ok, pan/tilt will turn to 'AUTO FLIP> OFF' temporarily.

❶
```
FUNCTION SETUP
 <PRESET SETUP>
 <VST SETUP>
 <PATTERN SETUP>
➧<GROUP SETUP>
 <SCHEDULE SETUP>


 BACK
 EXIT
```
Press Near/Enter Key

❷
```
GROUP SETUP
➧GROUP NO.      1
                UNDEFINED
 CLEAR GROUP    CANCEL
 <EDIT GROUP>


 BACK
 EXIT
```
Select <EDIT GROUP>, Press Near/Enter Key

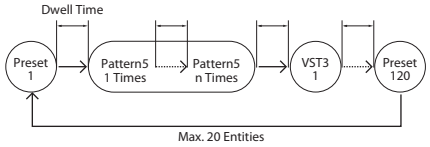
❸
```
EDIT GROUP          1
➧NO. ACTION NO. DWELL OPT
   1 NONE
   2 NONE
   3 NONE
   4 NONE
   5 NONE
 SAVE
 CANCEL  [NEAR:EDIT]
```
Press Near/Enter Key

❹
```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
➧  1 NONE
   2 NONE
   3 NONE
   4 NONE
   5 NONE
 SAVE    [NEAR:EDIT ACT]
 CANCEL  [FAR  :EDIT END]
```
Press Near/Enter Key

❺
```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
➧  1 NONE
   2 NONE
   3 NONE
   4 NONE
   5 NONE
 SAVE    [←→:MOVE CURSOR]
 CANCEL  [↑↓: CHANGE VAL.]
```

❷ GROUP SETUP SCREEN

The group function allows running sequence of presets, pattern and/or VSTs. Max. 8 group can be stored. Each group can have max. 20 action entities which can be preset, pattern or scan.



GROUP NO.	1 ~ 8

Selects group number to edit. If a selected group number is not defined, 'UNDEFINED' will be displayed under the selected group number.

CLEAR GROUP	CANCEL / OK

Deletes data in the current group.

<EDIT GROUP>
Moves to edit the group assigned.

❸ EDIT GROUP - Initial Screen

To edit group, press near key to move screen 4.
At the current screen, if moves joystick Down, the cursor will move to 'SAVE' menu.

NO.	1 ~ 20

Means the sequence of the function in a group.
The functions will be run from lower no. to higher no. by sequence.

ACTION NO.	NONE / PRESET 1~128(Excluding 95) / PATTERN 1~4 / VST 1~4

Select the function.
Select the function no. separately.

DWELL TIME	00:03 ~ 04:00 (min:sec)

Sets dwell time between function by moving joystick Up/Down. If the 'OPT' of pattern/group is set to repeat more than twice, it means the repeat interval.

OPT	PRESET: 2~360 / PATTERN & VST: 1~255

It should be preset speed when preset is set in 'ACTION'. It should be the number of repeat when pattern or VST is selected in 'ACTION'.

❹ EDIT GROUP – Select Function Sequence

Note that max. 20 functions are allowed in a group.
Move cursor Up/Down to rotate among 20 functions.

❺ EDIT GROUP - Assign Function

Move cursor to the 'NO.' to assign the function, press near key to set up. Select the function by moving joystick Up/Down.

❻
```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
➧  1 PATTERN 1   00:03  1
   2 NONE
   3 NONE
   4 NONE
   5 NONE
 SAVE    [←→:MOVE CURSOR]
 CANCEL  [↑↓: CHANGE VAL.]
```
Press Near/Enter Key

❼
```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
➧  1 PATTERN 1   00:03  1
   2 NONE
   3 NONE
   4 NONE
   5 NONE
 SAVE    [NEAR:EDIT ACT]
 CANCEL  [FAR  :EDIT END]
```
Press Far Key

❽
```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
   1 PATTERN 1   00:03  1
   2 NONE
   3 NONE
   4 NONE
   5 NONE
➧SAVE
 CANCEL
```

❻ EDIT GROUP - Assign Function

Move cursor Left/Right to select items and move cursor Up/Down to change each value.

❼ EDIT GROUP - Select Function Sequence

▩ The function undefined cannot be set as action.

e.g.) If 'PATTERN 1' is not defined at 'CONCEPT PRO SPEED DOME >FUNCTIONSETUP>PATTERN SETUP', then the 'ACTION 1' will beautomatically changed to 'NONE'.

```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
➧  1 PATTERN 1   00:03  1
   5 NONE
```
Press Near Key
```
EDIT GROUP          1
 NO. ACTION NO. DWELL OPT
➧  1 NONE
   5 NONE
```
<In case that 'PATTERN 1' is not defined.>

❽ EDIT GROUP- Saves the Setting

After finishing setting up all actions, place cursor on 'SAVE' . Then, press near key to save data.

❶

```
FUNCTION SETUP
 <PRESET SETUP>
 <VST SETUP>
 <PATTERN SETUP>
 <GROUP SETUP>
→<SCHEDULE SETUP>


 BACK
 EXIT
```

Press Near/Enter Key

❷

```
SCHEDULE SETUP
→MASTER ENABLE      OFF
   DAY TIME  ACT NO ON
 1 UNDEFINED
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

Joystick Down, Press Near Key

❸

```
SCHEDULE SETUP
 MASTER ENABLE      OFF
   DAY TIME  ACT NO ON
*1 UNDEFINED
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

Joystick Down

❹

```
SCHEDULE SETUP
 MASTER ENABLE      OFF
   DAY TIME  ACT NO ON
*1 ALL 00:00 HOM    OFF
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

Assign Value

❺

```
SCHEDULE SETUP
 MASTER ENABLE      OFF
   DAY TIME  ACT NO ON
*1 ALL 12:00 PRS 128 ON
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

❷ SCHEDULE SETUP SCREEN

- The schedule function allows running the appropriate function like preset, VST, group, pattern, home move at designated day and time.

  e.g.) if you setup a rule 'Tuesday at 9:00AM' and 'Preset 1 (say main gate)', the camera will move to main gate every Tuesday at 9:00AM.

- It is noted that due to the real time clock (CONCEPT PRO SPEED DOME>SYSTEM SETUP>DATE/TIME SETUP), the time data will be kept regardless of blackout. The initial time and day setup is essential to proper schedule function.
- Max. 7 schedules are allowed.

MASTER ENABLE Decide whether schedule function is active or not.	ON / OFF
DAY Set the day for scheduling. - **Undefined:** Inactivate - **All:** Applies to every day - **WKD:** Applies to every day except Sunday - **SUN-MON:** Applies to designated day only	UNDEFINED / ALL / WKD / SUN ~ MON
TIME Set the time.	00:00 ~ 23:59 (hour:min)
ACT NO Set the function and no. ▩ Unlike the group, the undefined function can be assigned in schedule. However, no action is taken at the schedule.	HOM(HOME) / PRS(Preset) 1~128(Excluding 95) / VST 1~8 / PTN(Pattern) 1~8 / GRO(Group) 1~8
ON Decide to make this rule effective or not.	ON /OFF

❹❺ SCHEDULE SETUP - Assign Value

Each field (DAY, TIME, ACT, NO., ON) can be selected by Left/Right keys and the values in the field are changed using Up/Down keys.

❻

```
SCHEDULE SETUP
 MASTER ENABLE      OFF
   DAY TIME  ACT NO ON
→1 ALL 12:00 PRS 128 ON
 2 UNDEFINED
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
 6 UNDEFINED
 7 UNDEFINED
 BACK
```

❻ SCHEDULE SETUP - Save Edited Setting

To save data and exit, press near key.

▩ If there are rules conflicts to each other, the higher number is, the higher priority has.

e.g.) The camera will move to 'Preset 127' at 12:00 on every Wednesday although 'Preset 128 and 127' were set at 12:00 on every Wednesday.

```
SCHEDULE SETUP
→MASTER ENABLE      OFF
   DAY TIME  ACT NO ON
 1 ALL 12:00 PRS 128 ON
 2 WED 12:00 PRS 127 ON
 3 UNDEFINED
 4 UNDEFINED
 5 UNDEFINED
```

3 OSD - CAMERA SETUP>WB SETUP

❶
```
CAMERA SETUP
 FOCUS MODE     SEMIAUTO
 DIGITAL ZOOM   ON
 IMAGE FLIP     OFF
➧<WHITE BALANCE SETUP>
 <AUTO EXPOSURE SETUP>


 BACK
 EXIT
```
Press Near/Enter Key

❷
```
WB SETUP
➧WB MODE          AUTO
   - RED ADJUST    ---
   - BLUE ADJUST   ---


 BACK
 EXIT
```
Press Near Key, Joystic Down

❸
```
WB SETUP
*WB MODE         ➧MANUAL
   - RED ADJUST    30
   - BLUE ADJUST   40


 BACK
 EXIT
```
Press Near/Enter Key

❹
```
WB SETUP
➧WB MODE          MANUAL
   - RED ADJUST    30
   - BLUE ADJUST   40


 BACK
 EXIT
```
Joystic Down

❺
```
WB SETUP
 WB MODE          MANUAL
➧  - RED ADJUST    30
   - BLUE ADJUST   40


 BACK
 EXIT
```

❶ CAMERA SETUP

Setup the general functions of zoom camera module.

FOCUS MODE AUTO / MANUAL / SEMIAUTO
Sets camera focus mode.

- **SEMIAUTO:** This mode exchanges focus mode automatically between manual focus mode and auto focus mode. Manual focus mode activates in preset operation and auto focus mode activates when jog operation starts.
- **MANUAL:** With manual mode at presets, focus data is memorized in each preset in advance and camera calls focus data in correspondence with presets as soon as camera arrives at a preset.

DIGITAL ZOOM ON / OFF
Sets digital zoom function to 'ON' or 'OFF'. If this is set to 'OFF', optical zoom function runs but zoom function stops at the end of optical zoom magnification.

IMAGE FLIP ON / OFF
Sets if the image should be reversed or not.

<WHITE BALANCE SETUP>
Move to 'WHITE BALACE SETUP' screen.

<AUTO EXPOSURE SETUP>
Move to 'AUTO EXPOSURE SETUP' screen.

❷ WB SETUP

WB MODE AUTO / MANUAL
Red and blue level can be set up manually only in manual mode.

RED ADJUST 10 ~ 60
Adjust the red color value. It can be set only in manual mode.

BLUE ADJUST 10 ~ 60
Adjust the blue color value. It can be set only in manual mode.

❸ WB SETUP - Set WB Mode to Manual

If WB mode changes to 'MANUAL', the value of 'RED ADJUST' and 'BLUE ADJUST' shows on the screen.

❹ ❺ WB SETUP - Change WB Colour Value

- If WB mode changes to 'MANUAL', the colour value of 'RED ADJUST' and 'BLUE ADJUST' can be set up manually.
- To save data and exit, press near key.

OSD - CAMERA SETUP>AE SETUP

❶
```
CAMERA SETUP
 FOCUS MODE     SEMIAUTO
 DIGITAL ZOOM   ON
 IMAGE FLIP     OFF
 <WHITE BALANCE SETUP>
➧<AUTO EXPOSURE SETUP>


 BACK
 EXIT
```
Press Near/Enter Key

❷
```
AE SETUP
➧BACKLIGHT      OFF
 DAY/NIGHT      AUTO   1
 BRIGHTNESS     25
 IRIS           AUTO
 SHUTTER        ESC
 AGC            NORMAL
 SSNR           MIDDLE
 DSS            OFF
 BACK
 EXIT
```

❸
```
MANUAL IRIS
➧IRIS LEVEL     0




 EXIT
```

❹
```
MANUAL SHUTTER
➧SHUTTER SPD   x2




 EXIT
```

❺
```
AUTO DSS
➧DSS LIMIT     x2




 EXIT
```

❷ AE SETUP

Setup the video related function of zoom camera module.

BACKLIGHT OFF / LOW / MIDDLE / HIGH
Sets the backlight compensation.

DAY/NIGHT AUTO1 / AUTO2 / DAY / NIGHT
'AUTO1' exchanges day/night mode faster than 'AUTO2'.

BRIHGTNESS 0 ~ 100
Adjusts the brightness of images.

IRIS AUTO / MANUAL
- **If iris is set to 'AUTO',** iris should have highest priority in adjusting AE and shutter speed should be fixed.
- **If iris is set to 'MANUAL',** iris should be fixed and iris has lower priority in adjusting AE, in comparison with others.

SHUTTER ESC / A.FLICKER / MANUAL
- **If iris is set to 'MANUAL' and shutter speed is set to 'ESC',** shutter speed should have highest priority.
- **Shutter speed is set to 'A. FLICKER', to remove flicker,** shutter speed should be set to 1/100 sec. for NTSC and 1/120 for PAL.

AGC OFF / NORMAL / HIGH
Enhances the image brightness automatically in case that luminance level of image signal is too low.

SSNR OFF / LOW / MIDDLE / HIGH
Enhances the images by deducting noises when gain level of images is too high.

DSS AUTO / OFF
- Activates the slow shutter function when luminance of image (signal) is too dark.
- It is possible to set up the maximum number of frames piled up one on another by Slow Shutter function.

❸ MANUAL IRIS SCREEN

IRIS LEVEL 0 ~ 100

❹ MANUAL SHUTTER SCREEN

SHUTTER SPD x128 ~ 1/120000

❺ AUTO DSS SCREEN

DSS LIMIT x2 ~ x128

❶
```
SYSTEM SETUP
➧<DATE/TIME SETUP>
 <RELAY TYPE>
 <PASSWORD>
 <SET HOME POSITION>
 <SET NORTH DIRECTION>
 LANGUAGE  ENGLISH

 BACK
 EXIT
```

Press Near/Enter Key

❷
```
DATE/TIME SETUP
➧DATE      01/JAN/2008(TUE)
 TIME      00:00:01(H/M/S)



 BACK
 EXIT
```

❸
```
RELAY TYPE SETUP
➧RELAY1  NORMAL OPEN



 BACK
 EXIT
```

❹
```
EDIT PASSWORD
[      ]
 - - - - - - - - - -
 1 2 3 4 5 6 7 8 9 0  OK
 A B C D E F G H I J  CANCEL
 K L M N O P Q R S T
 U V W X Y Z a b c d  DISABLE
 e f g h i j k l m n
 o p q r s t u v w x
 y z < > - / : .  ←
```

❶ SYSTEM SETUP

<DATE/TIME SETUP>
Moves to 'DATE/TIME SETUP' screen. Refer screen 2 below.

<RELAY TYPE>
Moves to 'RELAY TYPE' setup screen. Refer screen 3 below.

<PASSWORD>
Moves to 'PASSWORD' setup screen. Refer screen 4 below.

<SET HOME POSITION>
Moves to 'SET HOME POSITION' screen. Refer screen 5 on page 37.

<SET NORTH DIRECTION>
Moves to 'SET NORTH DIRECTION' screen. Refer screen 6 on page 37.

LANGUAGE ENGLISH / ESPAÑOL / FRANÇAIS / DEUTSCH / ITALIANO / РУССКИЙ / PORTUGUÊS
Select a preferred language among English, Spanish, French, German, Italian, Russian and Portuguese.

❷ DATE/TIME SETUP

DATE 01 / JAN / 2000 ~ 31 / DEC / 2037
Date is displayed in dd/mm/yy format.

1. If you press the near key, the focus will be placed on 'dd'.
2. Sets date moving joystick Up/Down.
3. Moves joystick Left/Right to move to date-month-year.
4. The values in the field are changed using Up/Down keys.

▩ The day is automatically calculated when you set the day.

TIME
Time is displayed in HH:MM:SS format.
Sets time same as setting date.

❸ RELAY TYPE SETUP

RELAY1 NORMAL OPEN(N.O) / NORMAL CLOSE(N.C)
- Contacts type of relay out are defined.
- Refer page 14 for the detailed information.

❹ EDIT PASSWORD

- Sets the 4 characters long password. If this function is set to 'ENABLE', the password is required whenever you enter OSD menu. The master password is '4321'.

▩ To input password, refer 'LABEL' on page 27.

❺
```
SET HOME POSOTION



MOVE TO TARGET POSITION
[NEAR:SELECT/FAR:CANCEL]
                    0/0/x1/E
```

❻
```
SET NORTH DIRECTION



MOVE TO TARGET POSITION
[NEAR:SELECT/FAR:CANCEL]
                    0/0/x1/N
```

❺ SET HOME POSITION

- Home position means the origin of pan angle calculation. The value of pan angle displayed on the screen is based on this home position.
- By using joystick, move the camera to the desired position and press near key.
- Home is not effective to tilt angle.
- If you change the location of the home position, all horizontal location of functions such as preset, VST, pattern, group and privacy zone will be shifted based on the changed home position.

▩ Set Home Position?
When you replace the camera block or the orientation of camera is changed due to maintenance operations, it is very difficult to maintain the same pan orientation. Therefore, all function data depending on pan orientation such as preset, VST, pattern, group and privacy zone are not useful any more accordingly. However, even in this case, you can reuse the data if you redefine set home position on the previous home position.

▩ For setup, refer 'EDIT SCENE' on page 26.

❻ SET NORTH DIRECTION

The direction will be displayed on the right-bottom of the screen, pan is '0' and direction is 'N'.

```
                    0/0/x1/N
```

3 OSD - SYSTEM INITIALISE

❶

```
SYSTEM INITIALISE
-------------------------
▸CLEAR ALL DATA        NO
 ■ CLR DISPLAY SET     NO
 ■ CLR CAMERA SET      NO
 ■ CLR MOTION SET      NO
 ■ CLR FUNCTION SET    NO
REBOOT CAMERA          NO
REBOOT SYSTEM          NO

BACK
EXIT
```

❶ SYSTEM INITIALISE

Initialises to the camera setting.

CLEAR ALL DATA ON / OFF
Deletes all configuration data such as display, camera, motion setup and so on.

CLR DISPLAY SET ON / OFF
Initialises display configuration. Reset display including privacy zones.

CLR CAMERA SET ON / OFF
Initialises camera configuration.

CLR MOTION SET ON / OFF
Initialises motion configuration. Resets all motion and schedules.

CLR FUNCTION SET ON / OFF
Deletes preset data, VST data, pattern data, group data and schedule data.

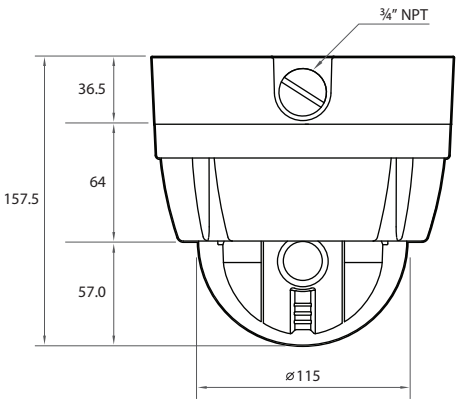
REBOOT CAMERA ON / OFF
Reboots zoom camera module.

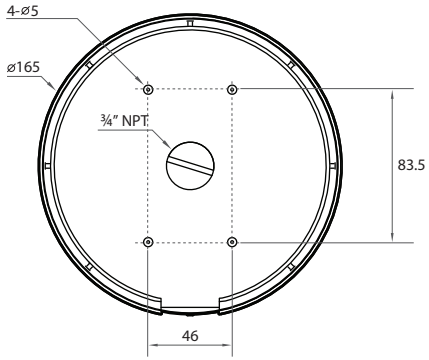
REBOOT SYSTEM ON / OFF
Reboots entire speed dome system.

※ OSD menu contents on page 20, 21, default values of each content are marked in bold.

4 Dimensions

Unit: mm

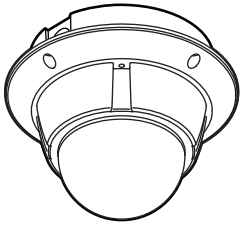


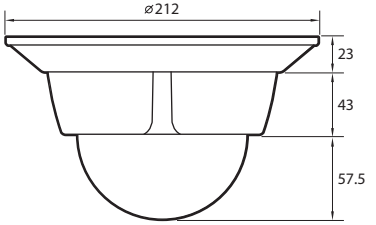


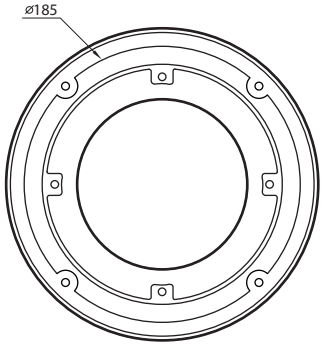
4 Dimensions of Option Brackets

1. Flush Mount Ring Bracket

Unit: mm

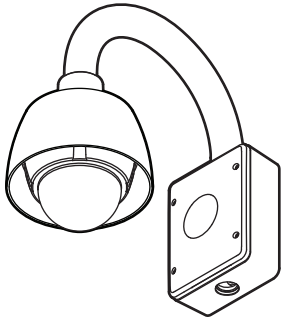


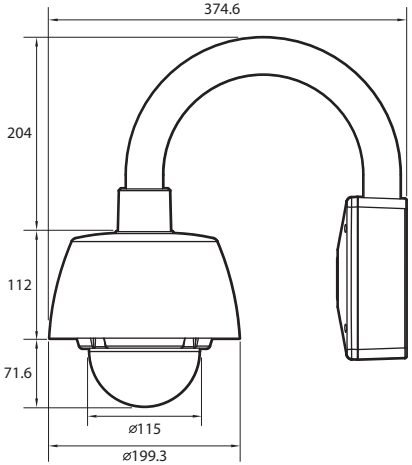


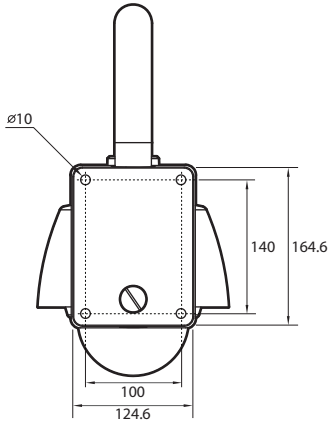


2. Sun Shield Mount Bracket

Unit: mm



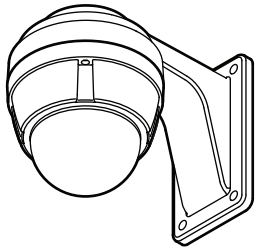


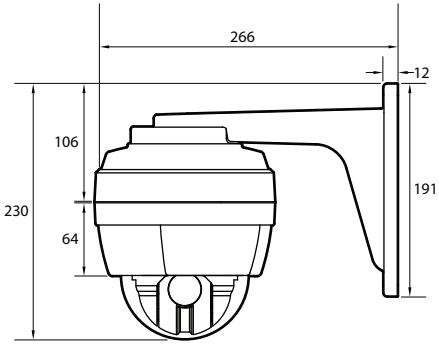


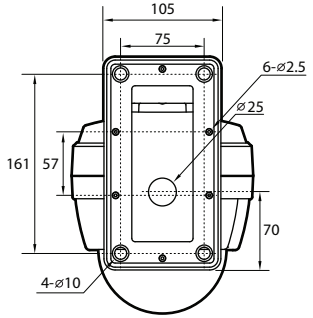
Dimensions of Option Brackets

3. Wall Mount Bracket

Unit: mm

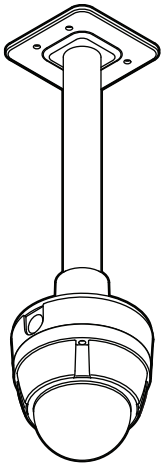


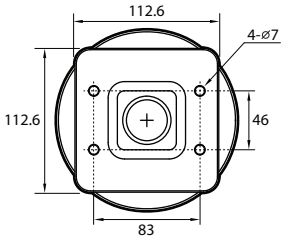


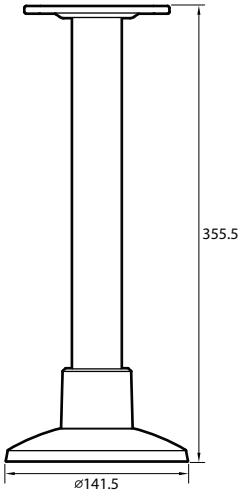


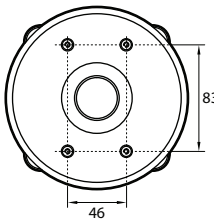
2. Ceiling Mount Bracket

Unit: mm









4 Specifications

Signal Format		NTSC	PAL
Camera	Image Device	1/4" Interline Transfer CCD	
	Total Pixel	410K pixels [811 (H) x 508 (V)]	470K pixels [795 (H) x 596 (V)]
	Effective Pixel	380K pixels [768 (H) x 494 (V)]	440K pixels [752 (H) x 582 (V)]
	H. Resolution	Color: 500 TV Lines B/W: 570 TV Lines	
	S/N Ratio	50dB (AGC Off)	
	Zoom	x10 Optical Zoom & x10 Digital Zoom	
	Focal Length	F 1.8, f=3.8 ~ 38mm	
	Min. Illuminance	Color: 0.7 Lux (50 IRE) B/W: 0.02 Lux	
	Day & Night	Auto / Day / Night (IR Cut Filter)	
	Focus	Auto / Manual / Semi-Auto	
	Iris	Auto / Manual	
	Shutter Speed	x128~ 1/120000 sec, Anti Flickerless	
	AGC	Normal / High / Off	
	White Balance	Auto / Manual (Red & Blue Gain Adjustable)	
	BLC	Low / Middle / High / Off	
	Flickerless	Selectable	
	SSNR	Low / Middle / High / Off	
	Other Functions	Frame Freeze Function, System Image Flip by Installation Type	
Pan/Tilt	Range	Pan: 360° (Endless)	
		Tilt: 0° ~ 180° (Auto-Flip On), 0° ~ 90° (Auto-Flip Off)	
	Pan/Tilt Speed	Preset: 360°/sec	
		Manual: 0.05° ~ 360°/sec (Zoom Proportional)	
		Scan: 1° ~ 180°/sec	
	Preset	127 Presets with Labels / Independent Camera Setup	
	Pattern	4 Patterns (Approx. 5 Minutes for Each Pattern)	
	VST	8 VST, Speed adjustable	
	Group	8 Groups (Max. 20 Enters for Each Group)	
	Schedule	7 Rules (Condition: Day, Time→Action: Preset, VST, Group, Pattern)	
	Other Functions	Image Auto Flip, Auto Parking, Power-up Action & etc.	
General	Communication	RS-485	
	Protocol	Auto, Pelco-D, Pelco-P, Samsung, Panasonic, GE(Kalatel), AD(American Dynamics) Selectable	
	Privacy Zone	4 Zones	
	Sensor In/Out	Built-in 2 Input / 1 Relay Output	
	OSD	Temperature, Day and Date & Time Display, Support 7 Languages: (ENGLISH / ESPAÑOL / FRANÇAIS / DEUTSCH / ITALIANO / РУССКИЙ / PORTUGUÊS)	
	Power	DC 12V(7.8W) ▩ Dual Voltage Model: AC 24V / DC 12V (7.8W)	
	Demension	Dome: Ø115 mm	
		Housing : Ø165 x 101.5(H) mm	
	Weight	Approx. 2.4 Kg (5.3Lbs)	
	Operating Temp.	-10°C ~ 50°C (14°F ~ 122°F)	